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Length Relations of Some Marine Fishes From Coastal Georgia

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Length Relations of Some Marine Fishes From Coastal Georgia

By

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CONTENTS

	Page
Introduction	1
Methods	1
Length relations	2
Tables 1-3	3-16

Length Relations of Some Marine Fishes From Coastal Georgia

By

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ABSTRACT

Information is given for converting standard length into fork and total lengths, fork length into standard and total lengths, and total length into standard and fork lengths of 82 species of marine fishes collected in coastal Georgia during 1953-61.

INTRODUCTION

The Bureau of Commercial Fisheries Biological Laboratory, Brunswick, Ga., is charged with a study of the life histories of fishes of the western North Atlantic Ocean with emphasis on those off the southeastern coast of the United States. One of the laboratory's programs, a study of coastal and estuarine ecology, includes a major project on the occurrence, abundance, seasonal distribution, apparent hydrographic preferences, and early life history of fishes of coastal Georgia.

During 1953-61, young of marine fishes were collected by seining at selected localities in three types of environment in McIntosh and Glynn counties, Georgia: the upper tidewaters of the Altamaha River, the ocean beach, and the saltmarshes. The collections included larvae, juveniles, and adults of some species, but only juveniles of others.

Published information on growth and changes in body form of fishes during development generally records length as standard, fork, or total. Comparison of these data is difficult or impossible without a means of converting one measurement to another. We wanted to be able to make such comparisons in detailed studies we were planning; so we determined the relations of standard, fork, and total length by the method of least squares for those species for which we had adequate data. This report presents the statistics describing these relations for 82 marine species and gives factors for converting one length measurement to another. Length relations for fresh-water species from the Altamaha River were not determined.

METHODS

To determine the relation of various length measurements, we measured representative samples of all sizes of all species for standard and total lengths and (for species with forked caudal fins) fork length. Sample sizes ranged from a few specimens for some species to thousands for others.

Standard length was measured from the tip of the snout to the end of the hypural bones (the caudal base), fork length from the tip of the snout to the tip of the shortest median caudal ray, and total length from the tip of the snout to a vertical at the tip of the longest lobe, or ray, of the caudal fin. Measurements (to the nearest millimeter) were made with dial calipers or a measuring board.

We measured a size series of specimens for each seine sample of each species. Some millimeter size groups were represented by one specimen; others by many specimens. We subsampled our data to treat the species uniformly. For each millimeter size group of standard length represented in our data, we selected at random one specimen and recorded its fork and total lengths; for each millimeter size group of fork length, we selected one specimen and recorded its standard and total lengths; and for each millimeter size group of total length, we selected one specimen and recorded its standard and fork lengths. We had three sets of data for species with forked caudal fins and two sets of data for those

without forked caudals. We further refined the data by selecting only those portions of the size series in which the observations were uniformly distributed, by discarding scattered observations at either end of the size range, and by omitting those species for which fewer than five size groups were available.

Linear regressions were calculated for standard, fork, and total length relations by the method of least squares. The Biometrics Unit, Bureau of Commercial Fisheries Biological Laboratory, Seattle, Wash., provided computer services to calculate regressions for species with a sample size of 25 or more, and we calculated the regressions for the rest of the species.

LENGTH RELATIONS

Three tables show the data essential to this paper. Table 1 gives the statistics describing the relations of standard, fork, and total lengths for 82 species of marine fishes from coastal Georgia. Table 2 gives the factors for converting one length to another, for the size range represented in our samples. Table 3 lists scientific and common names for all species mentioned in this report.

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia

[SL = standard length, FL = fork length, TL = total length, $\bar{x}$ = mean of values of X, $\bar{y}$ = mean of values of Y, N = number of millimeter size groups, b = change in Y for unit change in X, a = Y-intercept of regression line, and Sy.x = standard deviation from regression (standard error of estimate)]

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
ANGUILLIDAE									
Anguilla rostrata	SL	TL	45- 62	51.83	52.91	12	0.988	1.676	0.296
	TL	SL	46- 63	52.91	51.83	12	1.008	-1.498	.299
ARIIDAE									
Galeichthys felis	SL	FL	39- 93	64.97	70.72	36	1.063	1.630	.872
	SL	TL	39- 93	64.97	84.53	36	1.320	-1.245	2.818
	FL	SL	44- 99	69.53	63.91	34	.930	-.741	1.231
	FL	TL	44- 99	69.53	82.91	34	1.228	-2.466	2.171
	TL	SL	51-114	81.31	62.82	39	.781	-.645	.902
	TL	FL	51-114	81.31	68.46	39	.833	.756	.648
ATHERINIDAE									
Membras martinica	SL	FL	13- 84	48.50	55.06	72	1.135	.029	.961
	SL	TL	13- 84	48.50	58.32	72	1.199	.154	1.339
	FL	SL	15- 92	53.50	47.13	78	.874	.352	.971
	FL	TL	15- 92	53.50	56.73	78	1.061	-.033	.965
	TL	SL	16- 93	54.50	45.29	78	.832	-.078	.944
	TL	FL	16- 93	54.50	51.41	78	.948	-.230	.602
Menidia menidia	SL	FL	12- 95	53.01	60.86	83	1.127	1.112	.990
	SL	TL	12- 95	53.01	64.96	83	1.196	1.534	1.210
	FL	SL	13-107	59.02	51.42	93	.875	-.247	.940
	FL	TL	13-107	59.02	63.01	93	1.063	.286	.815
	TL	SL	14-113	63.50	51.78	100	.827	-.708	1.041
	TL	FL	14-113	63.50	59.46	100	.934	.122	.926
BATRACHOIDIDAE									
Opsanus tau	SL	TL	59-153	111.10	131.40	10	1.180	.280	1.337
	TL	SL	71-183	131.40	111.10	10	.846	-.051	1.132
BELONIDAE									
Strongylura marina	SL	TL	21-179	123.41	133.82	39	1.061	2.878	2.678
	TL	SL	23-193	132.26	121.87	39	.934	-1.676	2.401
BLENNIIDAE									
Chasmodes bosquianus	SL	TL	11- 71	43.55	52.55	9	1.180	1.183	2.046
	TL	SL	14- 84	52.55	43.55	9	.841	-.666	1.728
Hypsoblennius hentzi	SL	TL	8- 65	37.05	45.44	18	1.227	-.017	.750
	TL	SL	9- 78	45.44	37.05	18	.814	.057	.611

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
BOTHIDAE									
Etropus crossotus	SL	TL	48- 71	63.77	80.44	9	1.240	1.346	.827
	TL	SL	60- 88	80.44	63.77	9	.799	-.534	.664
Paralichthys dentatus	SL	TL	29- 56	39.18	47.81	11	1.271	-1.992	1.577
	TL	SL	32- 69	47.81	39.18	11	.777	2.013	1.233
Paralichthys lethostigma	SL	TL	20- 93	45.48	57.15	33	1.257	-.005	2.469
	TL	SL	26-117	54.84	43.30	37	.800	-.563	2.134
Paralichthys squamilentus	SL	TL	20- 42	32.70	41.50	10	1.223	1.501	.805
	TL	SL	26- 53	41.50	32.70	10	.812	-.986	.656
Scophthalmus aquosus	SL	TL	47- 78	65.10	83.10	10	1.212	4.225	1.526
	TL	SL	61- 99	83.10	65.10	10	.814	-2.502	1.251
CARANGIDAE									
Caranx hippos	SL	FL	21-106	52.00	56.43	35	1.069	.838	.538
	SL	TL	21-106	52.00	64.63	35	1.247	-.195	1.699
	FL	SL	23-114	57.33	52.85	33	.935	-.756	.456
	FL	TL	23-114	57.33	65.58	33	1.166	-1.246	1.815
	TL	SL	26-132	63.61	51.25	36	.800	.394	1.351
	TL	FL	26-132	63.61	55.92	36	.857	1.404	2.291
Chloroscombrus chrysurus	SL	FL	15-113	56.96	63.35	78	1.087	1.417	1.017
	SL	TL	15-113	56.96	73.55	78	1.316	-1.408	1.556
	FL	SL	17-131	64.47	58.02	88	.921	-1.352	.909
	FL	TL	17-131	64.47	75.16	88	1.216	-3.204	1.156
	TL	SL	18-127	70.19	54.30	99	.754	1.412	1.005
	TL	FL	18-127	70.19	60.45	99	.822	2.764	.966
Oligoplites saurus	SL	FL	9-106	51.17	55.76	66	1.060	1.544	0.779
	SL	TL	9-106	51.17	61.56	66	1.181	1.143	1.030
	FL	SL	10-113	54.20	49.75	71	.942	-1.324	.731
	FL	TL	10-113	54.20	59.86	71	1.116	-.644	.621
	TL	SL	11-127	60.36	50.32	75	.846	-.767	.878
	TL	FL	11-127	60.36	54.69	75	.896	.607	.622
Selene vomer	SL	FL	24- 78	40.22	44.11	9	1.099	-.100	.663
	SL	TL	24- 78	40.22	53.55	9	1.338	-.260	.883
	FL	SL	27- 86	44.11	40.22	9	.909	.133	.603
	FL	TL	27- 86	44.11	53.55	9	1.216	-.070	1.381
	TL	SL	32-105	53.55	40.22	9	.746	.245	.660
	TL	FL	32-105	53.55	44.11	9	.820	.178	1.134
Trachinotus carolinus	SL	FL	11-102	50.63	57.49	78	1.100	1.816	.972
	SL	TL	11-102	50.63	66.74	78	1.340	-1.089	1.674
	FL	SL	13-100	52.56	46.00	78	.903	-1.461	1.015
	FL	TL	13-100	52.56	60.69	78	1.214	-3.146	1.080
	TL	SL	14-102	56.24	42.66	85	.740	1.064	.916
	TL	FL	14-102	56.24	48.87	85	.822	2.655	.829
Trachinotus falcatus	SL	FL	12- 59	34.78	40.02	46	1.082	2.386	.647
	SL	TL	12- 59	34.78	46.28	46	1.303	.950	.662
	FL	SL	15- 67	39.72	34.49	47	.922	-2.148	.589
	FL	TL	15- 67	39.72	45.94	47	1.214	-2.292	.858
	TL	SL	16- 79	44.78	33.70	54	.769	-.712	.650
	TL	FL	16- 79	44.78	38.81	54	.831	1.618	.606
Trachinotus glaucus	SL	FL	19- 60	36.93	40.80	15	1.122	1.372	.593
	SL	TL	19- 60	36.93	48.13	15	1.326	-.839	.762
	FL	SL	22- 68	42.80	36.93	15	.890	-1.171	.528
	FL	TL	22- 68	42.80	48.13	15	1.182	-2.447	.551
	TL	SL	24- 78	48.13	36.93	15	.753	.693	.574
	TL	FL	24- 78	48.13	42.80	15	.846	2.106	.466

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
CARANGIDAE--Continued									
Vomer setapinnis	SL	FL	41- 60	52.40	58.20	5	1.169	-3.061	.986
	SL	TL	41- 60	52.40	68.60	5	1.410	-5.289	1.496
	FL	SL	45- 68	58.20	52.40	5	.850	2.930	.841
	FL	TL	45- 68	58.20	68.60	5	1.208	-1.682	.491
	TL	SL	53- 81	68.60	52.40	5	.702	4.229	1.056
	TL	FL	53- 81	68.60	58.20	5	.827	1.461	.406
CLUPEIDAE									
Alosa aestivalis	SL	FL	28- 58	40.00	45.00	6	1.084	1.620	.482
	SL	TL	28- 58	40.00	50.16	6	1.294	-1.612	.574
	FL	SL	32- 64	45.00	40.00	6	.921	-1.445	.444
	FL	TL	32- 64	45.00	50.16	6	1.191	-3.448	1.027
	TL	SL	35- 74	50.16	40.00	6	.772	1.292	.443
	TL	FL	35- 74	50.16	45.00	6	.836	3.051	.860
Alosa sapidissima	SL	FL	37- 60	50.10	54.90	10	1.110	-.726	.573
	SL	TL	37- 60	50.10	62.00	10	1.313	-3.761	.929
	FL	SL	41- 66	54.90	50.10	10	.897	.838	.515
	FL	TL	41- 66	54.90	62.00	10	1.179	-2.738	1.007
	TL	SL	45- 74	62.00	50.10	10	.756	3.197	.706
	TL	FL	45- 74	62.00	54.90	10	.841	2.758	.850
Brevoortia smithi	SL	FL	21- 74	46.53	50.84	38	1.050	1.992	.499
	SL	TL	21- 74	46.53	59.61	38	1.285	-.191	.901
	FL	SL	24- 85	49.44	46.23	39	.994	-2.921	1.433
	FL	TL	24- 85	49.44	59.26	39	1.283	-4.188	1.954
	TL	SL	27- 95	58.48	45.59	46	.776	.178	.596
	TL	FL	27- 95	58.48	49.83	46	.817	2.032	.656
Brevoortia tyrannus	SL	FL	14-148	69.12	76.36	105	1.103	.098	1.250
	SL	TL	14-148	69.12	88.45	105	1.320	-2.796	2.630
	FL	SL	16-145	76.03	68.64	117	.898	.389	1.430
	FL	TL	16-145	76.03	88.14	117	1.195	-2.712	1.588
	TL	SL	18-174	88.56	69.06	137	.751	2.531	1.602
	TL	FL	18-174	88.56	76.35	137	.834	2.480	1.456
Dorosoma cepedianum	SL	FL	73-117	89.14	98.71	14	1.056	4.605	1.356
	SL	TL	73-117	89.14	118.07	14	1.235	8.000	1.745
	FL	SL	81-127	98.71	89.14	14	.939	-3.568	1.279
	FL	TL	81-127	98.71	118.07	14	1.169	2.668	1.560
	TL	SL	97-150	118.07	89.14	14	.802	-5.505	1.406
	TL	FL	97-150	118.07	98.71	14	.848	-1.461	1.328
Dorosoma petenense	SL	FL	38- 71	52.81	58.13	22	1.078	1.180	.660
	SL	TL	38- 71	52.81	69.00	22	1.254	2.766	1.086
	FL	SL	42- 78	58.13	52.81	22	.923	-.844	.611
	FL	TL	42- 78	58.13	69.00	22	1.163	1.401	.770
	TL	SL	50- 93	69.00	52.81	22	.790	-1.700	.862
	TL	FL	50- 93	69.00	58.13	22	.856	-.927	.660
Harengula pensacolae	SL	FL	44- 63	54.28	59.33	21	.999	5.083	.605
	SL	TL	44- 63	54.28	68.61	21	1.280	-.863	.582
	FL	SL	49- 67	59.33	54.28	21	.988	-4.356	.602
	FL	TL	49- 67	59.33	68.61	21	1.270	-6.727	.752
	TL	SL	56- 79	68.61	54.28	21	.776	1.052	.453
	TL	FL	56- 79	68.61	59.33	21	.778	5.924	.588

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
CLUPEIDAE--Continued									
Opisthonema oglinum	SL	FL	28- 71	51.87	57.33	39	1.073	1.664	0.840
	SL	TL	28- 71	51.87	65.26	39	1.245	.665	1.427
	FL	SL	31- 82	58.84	52.80	45	.864	1.972	1.799
	FL	TL	31- 82	58.84	66.24	45	1.158	-1.875	2.055
	TL	SL	35- 97	67.40	53.80	50	.735	4.265	1.505
	TL	FL	35- 97	67.40	59.64	50	.832	3.544	1.522
Sardinella anchovia	SL	FL	24- 30	27.16	30.50	6	1.099	.648	.519
	SL	TL	24- 30	27.16	33.00	6	1.304	-2.417	.300
	FL	SL	27- 34	30.50	27.16	6	.881	.305	.464
	FL	TL	27- 34	30.50	33.00	6	1.164	-2.505	.386
	TL	SL	29- 37	33.00	27.16	6	.761	2.054	.229
	TL	FL	29- 37	33.00	30.50	6	.848	2.523	.330
CYNOGLOSSIDAE									
Symphurus plagiusa	SL	TL	11-124	47.20	51.70	40	1.096	-.055	.990
	TL	SL	13-138	51.70	47.20	40	.911	.096	.902
CYPRINODONTIDAE									
Cyprinodon variegatus	SL	TL	16- 41	28.08	34.88	25	1.166	2.133	.733
	TL	SL	21- 51	34.88	28.08	25	.851	-1.617	.626
Fundulus heteroclitus	SL	TL	5- 79	39.68	49.05	66	1.196	1.580	1.167
	TL	SL	7- 96	47.76	38.41	78	.823	-.899	1.015
Fundulus luciae	SL	TL	10- 31	18.95	23.30	23	1.210	.378	.687
	TL	SL	12- 39	23.30	18.95	23	.820	-.149	.566
Fundulus majalis	SL	TL	8- 87	51.18	62.32	87	1.182	1.800	1.107
	TL	SL	10-116	60.34	49.58	101	.844	-1.323	.962
DIODONTIDAE									
Chilomycterus schoepfi	SL	TL	12- 54	28.85	35.18	27	1.187	.944	.942
	TL	SL	15- 64	35.18	28.85	27	.839	-.673	.792
ECHELIDAE									
Myrophis punctatus	SL	TL	132-170	151.00	152.10	10	1.013	-.923	.284
	TL	SL	133-172	152.10	151.00	10	.986	.984	.250
ELOPIDAE									
Elops saurus	SL	FL	23-103	59.18	63.45	22	1.056	.950	.773
	SL	TL	23-103	59.18	74.54	22	1.294	-2.068	1.395
	FL	SL	25-109	63.45	59.18	22	.946	-.844	.732
	FL	TL	25-109	63.45	74.54	22	1.225	-3.192	1.476
	TL	SL	29-131	74.54	59.18	22	.771	1.702	1.077
	TL	FL	29-131	74.54	63.45	22	.815	2.730	1.204

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
ENGRAULIDAE									
Anchoa hepsetus	SL	FL	13- 94	53.58	58.68	78	1.078	.932	.770
	SL	TL	13- 94	53.58	65.42	78	1.228	-.395	1.208
	FL	SL	15-104	59.50	54.40	88	.927	-.756	.648
	FL	TL	15-104	59.50	66.39	88	1.141	-1.508	.947
	TL	SL	16-117	65.76	54.09	98	.817	.390	.973
	TL	FL	16-117	65.76	59.10	98	.881	1.178	.958
Anchoa lyolepis	SL	FL	28- 38	31.90	35.80	10	1.077	1.453	.898
	SL	TL	28- 38	31.90	39.00	10	1.378	-4.971	.697
	FL	SL	32- 42	35.80	31.90	10	.866	.894	.805
	FL	TL	32- 42	35.80	39.00	10	1.213	-4.436	1.075
	TL	SL	34- 48	39.00	31.90	10	.707	4.343	.499
	TL	FL	34- 48	39.00	35.80	10	.773	5.641	.858
Anchoa mitchilli	SL	FL	10- 71	40.03	43.52	61	1.078	.389	.623
	SL	TL	10- 71	40.03	48.30	61	1.214	-.315	.940
	FL	SL	11- 76	42.56	39.20	64	.929	-.350	.600
	FL	TL	11- 76	42.56	47.20	64	1.126	-.701	.748
	TL	SL	12- 84	47.51	39.33	72	.812	.768	.766
	TL	FL	12- 84	47.51	42.75	72	.887	.586	.715
EPHIPPIDAE									
Chaetodipterus faber	SL	TL	5- 32	15.15	20.36	19	1.278	1.000	.745
	TL	SL	7- 43	20.36	15.15	19	.779	-.714	.582
GERRIDAE									
Diapterus olisthostomus	SL	FL	17- 56	28.42	32.00	7	1.115	0.312	0.744
	SL	TL	17- 56	28.42	37.85	7	1.318	.398	2.023
	FL	SL	19- 62	32.00	28.42	7	.895	-.226	.667
	FL	TL	19- 62	32.00	37.85	7	1.184	-.032	1.342
	TL	SL	23- 72	37.85	28.42	7	.752	-.039	1.528
	TL	FL	23- 72	37.85	32.00	7	.841	.157	1.131
Eucinostomus gula	SL	FL	10- 71	37.58	42.04	53	1.106	.462	1.002
	SL	TL	10- 71	37.58	49.02	53	1.328	-.901	.958
	FL	SL	11- 89	42.24	37.32	59	.880	.140	1.506
	FL	TL	11- 89	42.24	48.90	59	1.172	-.601	1.848
	TL	SL	12- 93	45.85	35.13	61	.751	.681	.705
	TL	FL	12- 93	45.85	39.54	61	.834	1.304	.749
GOBIESOCIDAE									
Gobiesox strumosus	SL	TL	7- 54	28.71	35.56	34	1.240	-.027	1.004
	TL	SL	9- 68	36.24	29.32	37	.801	.301	.846
GOBIIDAE									
Gobionellus shufeldti	SL	TL	13- 65	34.77	45.79	39	1.352	-1.218	1.321
	TL	SL	17- 67	41.28	31.54	39	.740	1.004	.762
Gobiosoma bosci	SL	TL	8- 45	28.31	34.88	32	1.230	.061	.608
	TL	SL	9- 56	32.69	26.60	35	.806	.246	.498
MONACANTHIDAE									
Stephanolepis hispidus	SL	TL	8- 53	25.78	32.72	36	1.247	.568	.661
	TL	SL	10- 50	30.87	24.18	39	.795	-.353	.569

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
MUGILIDAE									
Mugil cephalus	SL	FL	13-230	103.75	119.88	174	1.135	2.148	1.763
	SL	TL	13-230	103.75	130.94	174	1.266	-.424	2.031
	FL	SL	16-248	117.35	101.30	192	.877	-1.584	1.732
	FL	TL	16-248	117.35	128.07	192	1.115	-2.733	1.634
	TL	SL	17-219	117.21	92.88	195	.787	.646	1.334
	TL	FL	17-219	117.21	107.75	195	.900	2.233	1.090
Mugil curema	SL	FL	16-125	67.66	79.38	104	1.157	1.066	.906
	SL	TL	16-125	67.66	86.69	104	1.288	-.468	1.254
	FL	SL	19-143	79.07	67.45	121	.860	-.542	.942
	FL	TL	19-143	79.07	86.39	121	1.114	-1.703	.861
	TL	SL	20-155	86.10	67.29	133	.773	.751	.925
	TL	FL	20-155	86.10	78.74	133	.897	1.488	.731
OPHIDIIDAE									
Rissola marginata	SL	TL	134-182	157.90	162.00	10	.973	8.411	.805
	TL	SL	138-184	162.00	157.90	10	1.026	-8.231	.826
POECILIIDAE									
Gambusia affinis	SL	TL	14- 36	22.52	29.52	23	1.276	.796	1.675
	TL	SL	17- 46	29.52	22.52	23	.758	.156	1.291
Heterandria formosa	SL	TL	12- 19	15.80	20.20	5	.951	5.171	.612
	TL	SL	16- 23	20.20	15.80	5	1.013	-4.661	.631
Poecilia latipinna	SL	TL	8- 42	26.92	34.19	26	1.272	-.040	.683
	TL	SL	10- 54	36.29	28.32	31	.771	.328	.868
POMACENTRIDAE									
Abudefduf saxatilis	SL	FL	22- 31	26.25	32.37	8	1.068	4.327	.653
	SL	TL	22- 31	26.25	35.75	8	1.288	1.948	.612
	FL	SL	27- 37	32.37	26.25	8	.907	-3.103	.601
	FL	TL	27- 37	32.37	35.75	8	1.182	-2.498	.728
	TL	SL	30- 42	35.75	26.25	8	.762	-.981	.470
	TL	FL	30- 42	35.75	32.37	8	.823	2.934	.608
POMADASYIDAE									
Orthopristis chrysopterus	SL	FL	11- 46	29.42	35.10	31	1.169	.695	.970
	SL	TL	11- 46	29.42	37.74	31	1.326	-1.268	.518
	FL	SL	13- 55	34.89	29.33	36	.852	-.407	.737
	FL	TL	13- 55	34.89	37.50	36	1.123	-1.682	1.195
	TL	SL	14- 59	37.77	29.49	39	.751	1.121	.425
	TL	FL	14- 59	37.77	35.26	39	.892	1.587	1.017
POMATOMIDAE									
Pomatomus saltatrix	SL	FL	28-108	62.82	71.26	34	1.113	1.324	1.822
	SL	TL	28-108	62.82	78.53	34	1.272	-1.398	1.562
	FL	SL	32-106	67.52	59.55	29	.910	-1.881	1.652
	FL	TL	32-106	67.52	74.38	29	1.135	-2.230	2.194
	TL	SL	35-103	68.46	54.93	28	.804	-.119	1.067
	TL	FL	35-103	68.46	62.61	28	.906	.583	.914

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
SCIAENIDAE									
Bairdiella chrysura	SL	TL	12-151	74.48	92.97	104	1.219	2.182	1.146
	TL	SL	15-165	84.62	67.67	112	.815	-1.270	.937
Cynoscion nebulosus	SL	TL	8- 60	26.45	33.40	20	1.224	1.020	.867
	TL	SL	10- 72	33.40	26.45	20	.815	-.764	.707
Cynoscion regalis	SL	TL	8- 50	28.93	37.38	29	1.290	.070	.756
	TL	SL	10- 52	33.55	25.86	29	.763	.266	.714
Larimus fasciatus	SL	TL	16- 48	31.44	42.37	27	1.336	.362	1.079
	TL	SL	22- 65	42.55	31.52	29	.751	-.446	.702
Leiostomus xanthurus	SL	TL	12-105	48.35	61.65	71	1.288	-.606	.910
	TL	SL	14-111	57.70	45.24	87	.771	.760	.893
Menticirrhus americanus	SL	TL	7-107	54.02	68.65	94	1.252	1.028	.968
	TL	SL	8-127	65.51	51.49	111	.797	-.726	.827
Menticirrhus littoralis	SL	TL	7-122	59.21	73.41	102	1.216	1.393	1.062
	TL	SL	9-148	70.03	56.32	119	.819	-1.006	.781
Menticirrhus saxatilis	SL	TL	11- 63	30.50	38.72	36	1.233	1.116	.679
	TL	SL	13- 56	33.62	26.38	39	.814	-.990	.537
Micropogon undulatus	SL	TL	7- 38	17.00	22.00	16	1.369	-1.270	.810
	TL	SL	8- 52	22.00	17.00	16	.728	.995	.590
Pogonias cromis	SL	TL	19- 67	33.85	43.42	7	1.316	-1.133	.392
	TL	SL	24- 87	43.42	33.85	7	.759	.877	.297
Sciaenops ocellata	SL	TL	13- 32	21.60	27.40	5	1.247	.469	.664
	TL	SL	16- 40	27.40	21.60	5	.799	-.290	.532
Stellifer lanceolatus	SL	TL	17- 93	54.22	71.51	27	1.295	1.295	1.298
	TL	SL	22-123	71.51	54.22	27	.770	-.864	1.001
SCOMBRIDAE									
Scomberomorus maculatus	SL	FL	15-108	57.71	64.00	35	1.102	.387	1.487
	SL	TL	15-108	57.71	72.23	35	1.269	-1.026	2.679
	FL	SL	17-103	53.59	48.47	32	.918	-.730	.761
	FL	TL	17-103	53.59	60.50	32	1.173	-2.349	2.506
	TL	SL	18-104	55.80	45.17	30	.812	-.149	.643
	TL	FL	18-104	55.80	50.07	30	.883	.771	.881
SOLEIDAE									
Trinectes maculatus	SL	TL	9- 50	27.82	36.42	38	1.277	.906	1.184
	TL	SL	11- 64	34.73	26.31	48	.764	-.209	.661
SPARIDAE									
Archosargus probatocephalus	SL	FL	11- 15	13.00	15.20	5	1.200	-.400	.365
	SL	TL	11- 15	13.00	16.20	5	1.200	.600	.365
	FL	SL	13- 18	15.20	13.00	5	.811	.676	.300
	FL	TL	13- 18	15.20	16.20	5	1.000	1.000	.000
	TL	SL	14- 19	16.20	13.00	5	.811	-.135	.300
	TL	FL	14- 19	16.20	15.20	5	1.000	-1.000	.000

Table 1.--Relation of standard, fork, and total lengths in marine fishes from coastal Georgia--Continued

Species	Independent variable X	Dependent variable Y	Size range, independent variable X	$\bar{x}$	$\bar{y}$	N	b	a	Sy.x
			Mm.	Mm.	Mm.				
SPARIDAE--Continued									
Lagodon rhomboides	SL	FL	14-119	66.33	77.33	15	1.138	1.873	.929
	SL	TL	14-119	66.33	84.86	15	1.282	-.155	1.670
	FL	SL	16-136	77.33	66.33	15	.878	-1.597	.816
	FL	TL	16-136	77.33	84.86	15	1.126	-2.252	1.407
	TL	SL	18-152	84.86	66.33	15	.779	.241	1.301
	TL	FL	18-152	84.86	77.33	15	.886	2.102	1.248
STROMATEIDAE									
Peprilus alepidotus	SL	FL	47-102	74.56	83.95	23	1.063	4.693	.777
	SL	TL	47-102	73.32	101.25	28	1.450	-5.057	1.320
	FL	SL	54-114	83.95	74.56	23	.939	-4.235	.730
	FL	TL	54-114	82.57	101.25	28	1.353	-10.442	1.132
	TL	SL	62-145	101.25	73.32	28	.687	3.751	.908
	TL	FL	62-145	101.25	82.57	28	.737	7.918	.836
SYNGNATHIDAE									
Syngnathus fuscus	SL	TL	33-101	69.10	72.03	30	1.025	1.175	.404
	TL	SL	35-105	72.03	69.10	30	.975	-1.100	.394
Syngnathus louisianae	SL	TL	39- 81	55.79	58.29	24	1.039	.313	.461
	TL	SL	41- 84	58.29	55.79	24	.961	-.221	.443
SYNODONTIDAE									
Synodus foetens	SL	FL	32- 44	36.07	38.30	13	1.093	-1.121	0.794
	SL	TL	32- 44	36.07	41.23	13	1.188	-1.610	.436
	FL	SL	33- 46	38.30	36.07	13	.883	2.263	.713
	FL	TL	33- 46	38.30	41.23	13	1.052	.927	.873
	TL	SL	35- 50	41.23	36.07	13	.834	1.680	.366
	TL	FL	35- 50	41.23	38.30	13	.915	.575	.814
TETRAODONTIDAE									
Sphaeroides maculatus	SL	TL	9- 37	20.17	26.71	28	1.240	1.699	.619
	TL	SL	12- 47	26.71	20.17	28	.802	-1.265	.498
TRIGLIDAE									
Prionotus carolinus	SL	TL	35- 73	51.50	65.64	14	1.339	-3.339	.820
	TL	SL	44- 94	65.64	51.50	14	.744	2.690	.611
Prionotus scitulus	SL	TL	17- 61	37.21	46.30	13	1.248	-.119	1.084
	TL	SL	22- 78	46.30	37.21	13	.798	.258	.867
Prionotus tribulus	SL	TL	10- 64	39.44	50.00	9	1.264	.132	.710
	TL	SL	13- 81	50.00	39.44	9	.790	-.060	.560
URANOSCOPIDAE									
Astroscopus y-graecum	SL	TL	11- 98	41.75	55.29	51	1.264	2.514	1.220
	TL	SL	16- 96	52.86	39.64	56	.775	-1.329	.946

Table 2.--Conversion factors for standard, fork, and total lengths (millimeters) for 82 species of marine fishes occurring in coastal Georgia

[Six factors are given for species with forked caudal fins, two are given for species without forked caudal fins]

Species	Size range Total length	Standard length to:		Fork length to:		Total length to:	
		Fork length	Total length	Standard length	Total length	Standard length	Fork length
	Mm.						
ANGUILLIDAE							
Anguilla rostrata	46- 63		1.676 + 0.988SL			-1.498 + 1.008TL	
ARIIDAE							
Galeichthys felis	51-114	1.630 + 1.063SL	-1.245 + 1.320SL	-0.741 + 0.930FL	-2.466 + 1.228FL	-.645 + .781TL	0.756 + 0.833TL
ATHERINIDAE							
Membras martinica	16- 93	.029 + 1.135SL	.154 + 1.199SL	.352 + .874FL	-.033 + 1.061FL	-.078 + .832TL	-.230 + .948TL
Menidia menidia	14-113	1.112 + 1.127SL	1.534 + 1.196SL	-.247 + .875FL	.286 + 1.063FL	-.708 + .827TL	.122 + .934TL
BATRACHOIDIDAE							
Opsanus tau	71-183		.280 + 1.180SL			-.051 + .846TL	
BELONIDAE							
Strongylura marina	23-193		2.878 + 1.061SL			-1.676 + .934TL	
BLENNIIDAE							
Chasmodes bosquianus	14- 84		1.183 + 1.180SL			-.666 + .841TL	
Hypsoblennius hentzi	9- 78		-.017 + 1.227SL			.057 + .814TL	
BOTHIDAE							
Etropus crossotus	60- 88		1.346 + 1.240SL			-.534 + .799TL	
Paralichthys dentatus	32- 69		-1.992 + 1.271SL			2.013 + .777TL	
Paralichthys lethostigma	26-117		-.005 + 1.257SL			-.563 + .800TL	
Paralichthys squamilentus	26- 53		1.501 + 1.223SL			-.986 + .812TL	
Scophthalmus aquosus	61- 99		4.225 + 1.212SL			-2.502 + .814TL	
CARANGIDAE							
Caranx hippos	26-132	.838 + 1.069SL	-.195 + 1.247SL	-.756 + .935FL	-1.246 + 1.166FL	.394 + .800TL	1.404 + .857TL
Chloroscombrus chrysurus	18-127	1.417 + 1.087SL	-1.408 + 1.316SL	-1.352 + .921FL	-3.204 + 1.216FL	1.412 + .754TL	2.764 + .822TL
Oligoplites saurus	11-127	1.544 + 1.060SL	1.143 + 1.181SL	-1.324 + .942FL	-.644 + 1.116FL	-.767 + .846TL	.607 + .896TL
Selene vomer	32-105	-.100 + 1.099SL	-.260 + 1.338SL	.133 + .909FL	-.070 + 1.216FL	.245 + .746TL	.178 + .820TL
Trachinotus carolinus	14-102	1.186 + 1.100SL	-1.089 + 1.340SL	-1.461 + .903FL	-3.146 + 1.214FL	1.064 + .740TL	2.655 + .822TL
Trachinotus falcatus	16- 79	2.386 + 1.082SL	.950 + 1.303SL	-2.148 + .922FL	-2.292 + 1.214FL	-.712 + .769TL	1.618 + .831TL
Trachinotus glaucus	24- 78	1.372 + 1.122SL	-.839 + 1.326SL	-1.171 + .890FL	-2.447 + 1.182FL	.693 + .753TL	2.106 + .846TL
Vomer setapinnis	53- 81	-3.061 + 1.169SL	-5.289 + 1.410SL	2.930 + .850FL	-1.682 + 1.208FL	4.229 + .702TL	1.461 + .827TL
CLUPEIDAE							
Alosa aestivalis	35- 74	1.620 + 1.084SL	-1.612 + 1.294SL	-1.445 + .921FL	-3.448 + 1.191FL	1.292 + .772TL	3.051 + .836TL
Alosa sapidissima	45- 74	-.726 + 1.110SL	-3.761 + 1.313SL	.838 + .897FL	-2.738 + 1.179FL	3.197 + .756TL	2.758 + .841TL
Brevoortia smithi	27- 95	1.992 + 1.050SL	-.191 + 1.285SL	-2.921 + .994FL	-4.188 + 1.283FL	.178 + .776TL	2.032 + .817TL
Brevoortia tyrannus	18-174	.098 + 1.103SL	-2.796 + 1.320SL	.389 + .898FL	-2.712 + 1.195FL	2.531 + .751TL	2.480 + .834TL
Dorosoma cepedianum	97-150	4.605 + 1.056SL	8.000 + 1.235SL	-3.568 + .939FL	2.668 + 1.169FL	-5.505 + .802TL	-1.461 + .848TL
Dorosoma petenense	50- 93	1.180 + 1.078SL	2.766 + 1.254SL	-.844 + .923FL	1.401 + 1.163FL	-1.700 + .790TL	-.927 + .856TL
Harengula pensacolae	56- 79	5.083 + .999SL	-.863 + 1.280SL	-4.356 + .988FL	-6.727 + 1.270FL	1.052 + .776TL	5.924 + .778TL
Opisthonema oglinum	35- 97	1.664 + 1.073SL	.665 + 1.245SL	1.972 + .864FL	-1.875 + 1.158FL	4.265 + .735TL	3.544 + .832TL
Sardinella anchovia	29- 37	.648 + 1.099SL	-2.417 + 1.304SL	.305 + .881FL	-2.505 + 1.164FL	2.054 + .761TL	2.523 + .848TL
CYNOGLOSSIDAE							
Symphurus plagiusa	13-138		-.055 + 1.096SL			.096 + .911TL	
CYPRINODONTIDAE							
Cyprinodon variegatus	21- 51		2.133 + 1.166SL			-1.617 + .851TL	
Fundulus heteroclitus	7- 96		1.580 + 1.196SL			-.899 + .823TL	
Fundulus luciae	12- 39		.378 + 1.210SL			-.149 + .820TL	
Fundulus majalis	10-116		1.800 + 1.182SL			-1.323 + .844TL	
DIODONTIDAE							
Chilomycterus schoepfi	15- 64		.944 + 1.187SL			-.673 + .839TL	
ECHELIDAE							
Myrophis punctatus	133-172		-.923 + 1.013SL			.984 + .986TL	

Table 2.--Conversion factors for standard, fork, and total lengths (millimeters) for 82 species of marine fishes occurring in coastal Georgia--Continued

Species	Size range Total length	Standard length to:		Fork length to:		Total length to:	
		Fork length	Total length	Standard length	Total length	Standard length	Fork length
	Mm.						
ELOPIDAE							
Elops saurus	29-131	0.950 + 1.056SL	-2.068 + 1.294SL	-0.844 + 0.946FL	-3.192 + 1.225FL	1.702 + 0.771TL	2.730 + 0.815TL
ENGRAULIDAE							
Anchoa hepsetus	16-117	.932 + 1.078SL	-.395 + 1.228SL	-.756 + .927FL	-1.508 + 1.141FL	.390 + .817TL	1.178 + .881TL
Anchoa lyolepis	34- 48	1.453 + 1.077SL	-4.971 + 1.378SL	.894 + .866FL	-4.436 + 1.213FL	4.343 + .707TL	5.641 + .773TL
Anchoa mitchilli	12- 84	.389 + 1.078SL	-.315 + 1.214SL	-.350 + .929FL	-.701 + 1.126FL	.768 + .812TL	.586 + .887TL
EPHIPPIDAE							
Chaetodipterus faber	7- 43		1.000 + 1.278SL			-.714 + .779TL	
GERRIDAE							
Diapterus olisthostomus	23- 72	.312 + 1.115SL	.398 + 1.318SL	-.226 + .895FL	-.032 + 1.184FL	-.039 + .752TL	.157 + .841TL
Eucinostomus gula	12- 93	.462 + 1.106SL	-.901 + 1.328SL	.140 + .880FL	-.601 + 1.172FL	.681 + .751TL	1.304 + .834TL
GOBIESOCIDAE							
Gobiesox strumosus	9- 68		-.027 + 1.240SL			.301 + .801TL	
GOBIIDAE							
Gobionellus shufeldti	17- 67		-1.218 + 1.352SL			1.004 + .740TL	
Gobiosoma bosci	9- 56		.061 + 1.230SL			.246 + .806TL	
MONACANTHIDAE							
Stephanolepis hispidus	10- 50		.568 + 1.247SL			-.353 + .795TL	
MUGILIDAE							
Mugil cephalus	17-219	2.148 + 1.135SL	-.424 + 1.266SL	-1.584 + .877FL	-2.733 + 1.115FL	.646 + .787TL	2.233 + .900TL
Mugil curema	20-155	1.066 + 1.157SL	-.468 + 1.288SL	-.542 + .860FL	-1.703 + 1.114FL	.751 + .773TL	1.488 + .897TL
OPHIDIIDAE							
Rissola marginata	138-184		8.411 + .973SL			-8.231 + 1.026TL	
POECILIIDAE							
Gambusia affinis	17- 46		.796 + 1.276SL			.156 + .758TL	
Heterandria formosa	16- 23		5.171 + .951SL			-4.661 + 1.013TL	
Poecilia latipinna	10- 54		-.040 + 1.272SL			.328 + .771TL	
POMACENTRIDAE							
Abudefduf saxatilis	30- 42	4.327 + 1.068SL	1.948 + 1.288SL	-3.103 + .907FL	-2.498 + 1.182FL	-.981 + .762TL	2.934 + .823TL
POMADASYIDAE							
Orthopristis chrysopterus	14- 59	.695 + 1.169SL	-1.268 + 1.326SL	-.407 + .852FL	-1.682 + 1.123FL	1.121 + .751TL	1.587 + .892TL
POMATOMIDAE							
Pomatomus saltatrix	35-103	1.324 + 1.113SL	-1.398 + 1.272SL	-1.881 + .910FL	-2.230 + 1.135FL	-.119 + .804TL	.583 + .906TL
SCIAENIDAE							
Bairdiella chrysura	15-165		2.182 + 1.219SL			-1.270 + .815TL	
Cynoscion nebulosus	10- 72		1.020 + 1.224SL			-.764 + .815TL	
Cynoscion regalis	10- 52		.070 + 1.290SL			.266 + .763TL	
Larimus fasciatus	22- 65		.362 + 1.336SL			-.446 + .751TL	
Leiostomus xanthurus	14-111		-.606 + 1.288SL			.760 + .771TL	
Menticirrhus americanus	8-127		1.028 + 1.252SL			-.726 + .797TL	
Menticirrhus littoralis	9-148		1.393 + 1.216SL			-1.006 + .819TL	
Menticirrhus saxatilis	13- 56		1.116 + 1.233SL			-.990 + .814TL	
Micropogon undulatus	8- 52		-1.270 + 1.369SL			.995 + .728TL	
Pogonias cromis	24- 87		-1.133 + 1.316SL			.877 + .759TL	
Sciaenops ocellata	16- 40		.469 + 1.247SL			-.290 + .799TL	
Stellifer lanceolatus	22-123		1.295 + 1.295SL			-.864 + .770TL	

Table 2.--Conversion factors for standard, fork, and total lengths (millimeters) for 82 species of marine fishes occurring in coastal Georgia--Continued

Species	Size range Total length	Standard length to:		Fork length to:		Total length to:	
		Fork length	Total length	Standard length	Total length	Standard length	Fork length
	Mm.						
SCOMBRIDAE							
Scomberomorus maculatus	18-104	0.387 + 1.102SL	-1.026 + 1.269SL	-0.730 + .918FL	-2.349 + 1.173FL	-0.149 + .812TL	0.771 + .883TL
SOLEIDAE							
Trinectes maculatus	11- 64		.906 + 1.277SL			-.209 + .764TL	
SPARIDAE							
Archosargus probatocephalus	14- 19	-.400 + 1.200SL	.600 + 1.200SL	.676 + .811FL	1.000 + 1.000FL	-.135 + .811TL	-1.000 + 1.000TL
Lagodon rhomboides	18-152	1.873 + 1.138SL	-.155 + 1.282SL	-1.597 + .878FL	-2.252 + 1.126FL	.241 + .779TL	2.102 + .886TL
STROMATEIDAE							
Peprilus alepidotus	62-145	4.693 + 1.063SL	-5.057 + 1.450SL	-4.235 + .939FL	-10.442 + 1.353FL	3.751 + .687TL	7.918 + .737TL
SYNGNATHIDAE							
Syngnathus fuscus	35-105		1.175 + 1.025SL			-1.100 + .975TL	
Syngnathus louisianae	41- 84		.313 + 1.039SL			-.221 + .961TL	
SYNODONTIDAE							
Synodus foetens	35- 50	-1.121 + 1.093SL	-1.610 + 1.188SL	2.263 + .883FL	.927 + 1.052FL	1.680 + .834TL	.575 + .915TL
TETRAODONTIDAE							
Sphaeroides maculatus	12- 47		1.699 + 1.240SL			-1.265 + .802TL	
TRIGLIDAE							
Prionotus carolinus	44- 94		-3.339 + 1.339SL			2.690 + .744TL	
Prionotus scitulus	22- 78		-.119 + 1.248SL			.258 + .798TL	
Prionotus tribulus	13- 81		.132 + 1.264SL			-.060 + .790TL	
URANOSCOPIDAE							
Astroscopus y-graecum	16- 96		2.514 + 1.264SL			-1.329 + .775TL	

Table 3.--List of scientific and common names of fishes

[Common name is from American Fisheries Society Special Publication 2(1960)[1] -a second common name has been added where the AFS name may confuse species locally]

Family	Species	Common name
ANGUILLIDAE	Anguilla rostrata (LeSueur)	American eel
ARIIDAE	Galeichthys felis (Linnaeus)	Sea catfish
ATHERINIDAE	Membras martinica (Valenciennes)	Rough silverside
	Menidia menidia (Linnaeus)	Atlantic silverside
BATRACHOIDIDAE	Opsanus tau (Linnaeus)	Oyster toadfish
BELONIDAE	Strongylura marina (Walbaum)	Atlantic needlefish
BLENNIIDAE	Chasmodes bosquianus (Lacépède)	Striped blenny
	Hypsoblennius hentzi (LeSueur)	Feather blenny
BOTHIDAE	Etropus crossotus Jordan and Gilbert	Fringed flounder
	Paralichthys dentatus (Linnaeus)	Summer flounder
	Paralichthys lethostigma Jordan and Gilbert	Southern flounder
	Paralichthys squamilentus Jordan and Gilbert	Broad flounder
	Scophthalmus aquosus (Mitchill)	Windowpane
CARANGIDAE	Caranx hippos (Linnaeus)	Crevalle jack
	Chloroscombrus chrysurus (Linnaeus)	Bumper
	Oligoplites saurus (Bloch and Schneider)	Leatherjacket
	Selene vomer (Linnaeus)	Lookdown
	Trachinotus carolinus (Linnaeus)	Pompano
	Trachinotus falcatus (Linnaeus)	Permit
	Trachinotus glaucus (Bloch)	Palometa
	Vomer setapinnis (Mitchill)	Atlantic moonfish
CLUPEIDAE	Alosa aestivalis (Mitchill)	Blue back herring
	Alosa sapidissima (Wilson)	American shad
	Brevoortia smithi Hildebrand	Yellowfin shad
	Brevoortia tyrannus (Latrobe)	Atlantic menhaden
	Dorosoma cepedianum (LeSueur)	Gizzard shad
	Dorosoma petenense (Günther)	Threadfin shad
	Harengula pensacolae Goode and Bean	Scaled sardine
	Opisthonema oglinum (LeSueur)	Atlantic thread herring
	Sardinella anchovia Valenciennes	Spanish sardine

[1] A list of common and scientific names of fishes from the United States and Canada, by Reeve M. Bailey, et al. 1960. Amer. Fish. Soc. Spec. Publ. No. 2 (2nd ed.), 102 p.

Table 3.--List of scientific and common names of fishes--Continued

Family	Species	Common name
CYNOGLOSSIDAE	Symphurus plagiusa (Linnaeus)	Blackcheek tonguefish
CYPRINODONTIDAE	Cyprinodon variegatus Lacèpéde	Sheepshead minnow
	Fundulus heteroclitus (Linnaeus)	Mummichog
	Fundulus luciae (Baird)	Spotfin killifish
	Fundulus majalis (Walbaum)	Striped killifish
DIODONTIDAE	Chilomycterus schoepfi (Walbaum)	Striped burrfish
ECHELIDAE	Myrophis punctatus Lutken	Speckled worm eel
ELOPIDAE	Elops saurus Linnaeus	Ladyfish
ENGRAULIDAE	Anchoa hepsetus (Linnaeus)	Striped anchovy
	Anchoa lyolepis (Evermann and Marsh)	Dusky anchovy
	Anchoa mitchilli (Valenciennes)	Bay anchovy
EPHIPPIDAE	Chaetodipterus faber (Broussonet)	Atlantic spadefish
GERRIDAE	Diapterus olisthostomus (Goode and Bean)	Irish pompano; mojarra
	Eucinostomus gula (Quoy and Gaimard)	Silver jenny; mojarra
GOBIESOCIDAE	Gobiesox strumosus Cope	Skilletfish
GOBIIDAE	Gobionellus shufeldti (Jordan and Evermann)	Freshwater goby
	Gobiosoma bosci (Lacepede)	Naked goby
MONACANTHIDAE	Stephanolepis hispidus (Linnaeus)	Planehead filefish
MUGILIDAE	Mugil cephalus Linnaeus	Striped mullet
	Mugil curema Valenciennes	White mullet
OPHIDIIDAE	Rissola marginata (DeKay)	Striped cusk-eel
POECILIIDAE	Gambusia affinis (Baird and Girard)	Mosquitofish
	Heterandria formosa Agassiz	Least killifish
	Poecilia latipinna (LeSueur)	Sailfin molly
POMACENTRIDAE	Abudefduf saxatilis (Linnaeus)	Sergeant major
POMADASYIDAE	Orthopristis chrysopterus (Linnaeus)	Pigfish
POMATOMIDAE	Pomatomus saltatrix (Linnaeus)	Bluefish

Table 3.--List of scientific and common names of fishes--Continued

Family	Species	Common name
SCIAENIDAE	Bairdiella chrysura (Lacépède)	Silver perch; yellowtail
	Cynoscion nebulosus (Cuvier)	Spotted seatrout
	Cynoscion regalis (Bloch and Schneider)	Weakfish; gray seatrout
	Larimus fasciatus Holbrook	Banded drum
	Leiostomus xanthurus Lacépède	Spot
	Menticirrhus americanus (Linnaeus)	Southern kingfish
	Menticirrhus littoralis (Holbrook)	Gulf kingfish
	Menticirrhus saxatilis (Bloch and Schneider)	Northern kingfish
	Micropogon undulatus (Linnaeus)	Atlantic croaker
	Pogonias cromis (Linnaeus)	Black drum
	Sciaenops ocellata (Linnaeus)	Red drum; channel bass
	Stellifer lanceolatus (Holbrook)	Star drum
SCOMBRIDAE	Scomberomorus maculatus (Mitchill)	Spanish mackerel
SOLEIDAE	Trinectes maculatus (Bloch and Schneider)	Hogchoker
SPARIDAE	Archosargus probatocephalus (Walbaum)	Sheepshead
	Lagodon rhomboides (Linnaeus)	Pinfish
STROMATEIDAE	Peprilus alepidotus (Linnaeus)	Southern harvestfish
SYNGNATHIDAE	Syngnathus fuscus Storer	Northern pipefish
	Syngnathus louisianae Günther	Chain pipefish
SYNODONTIDAE	Synodus foetens (Linnaeus)	Inshore lizardfish
TETRAODONTIDAE	Sphaeroides maculatus (Bloch and Schneider)	Northern puffer
TRIGLIDAE	Prionotus carolinus (Linnaeus)	Northern searobin
	Prionotus scitulus Jordan and Gilbert	Leopard searobin
	Prionotus tribulus Cuvier	Bighead searobin
URANOSCOPIDAE	Astroscopus y-graecum (Cuvier)	Southern stargazer

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